In Memoriam.

SIR WILLIAM TURNER, K.C.B.

1832–1916.

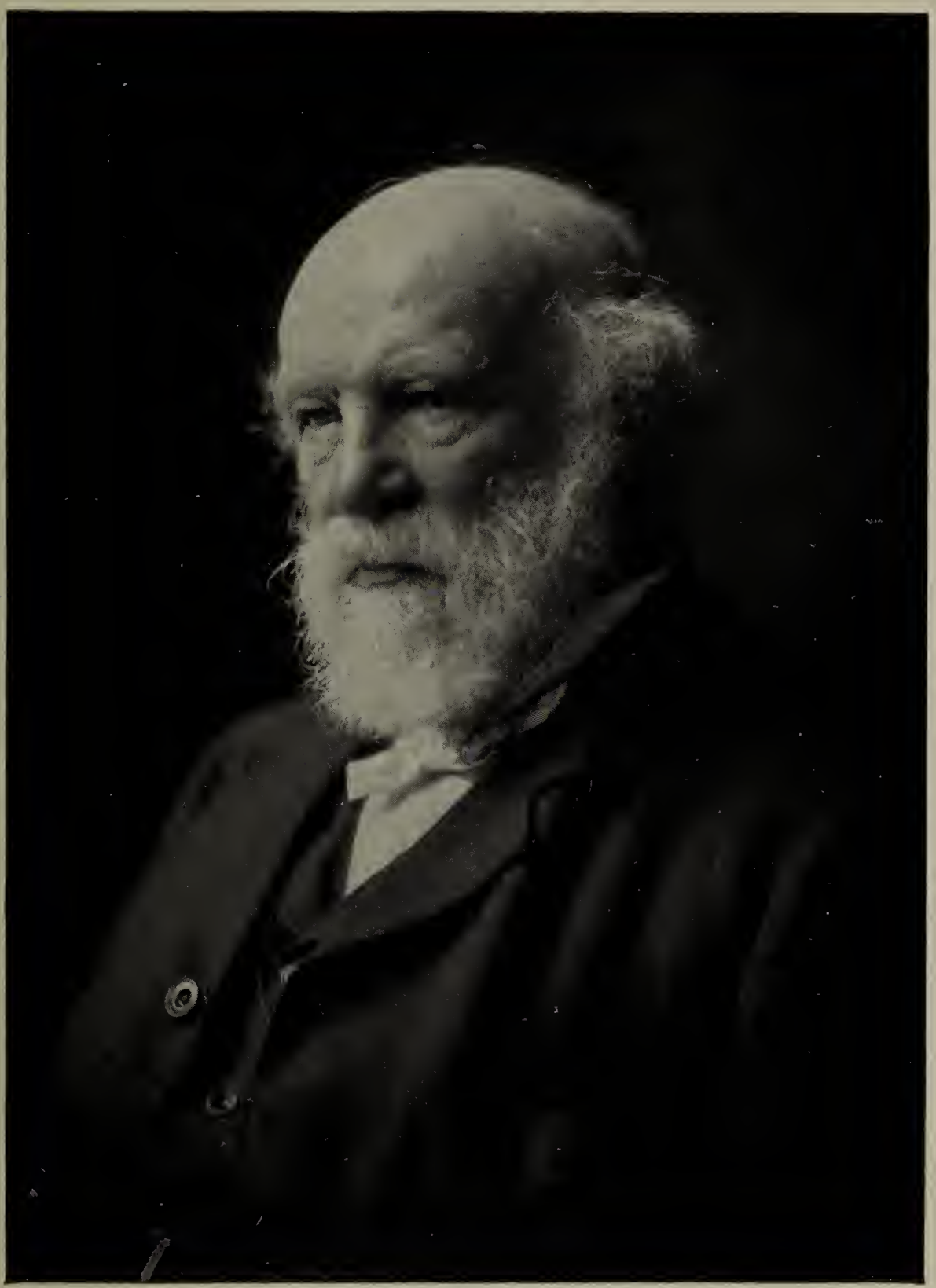
Sir William Turner was for so long a time closely connected with the University of Edinburgh as Demonstrator, as Professor of Anatomy, and later as Principal and Vice-Chancellor of the University, that it came as a surprise to many of the later generations of St. Bartholomew men to learn at his death that he was an alumnus of our Medical School, having entered as a student in October 1850. Although he joined our school then, his name does not appear until 1851 on the list of students kept at the Hospital; this discrepancy probably arises from his not entering as a full student until he had time to judge of the advisability of his remaining at our school. At the time of his entry Mr. Holden and Sir William Savory were the Demonstrators of Anatomy, Sir William Lawrence Lecturer on Surgery, and Sir George Burrows on Medicine. Among his fellow-students were Mr. Callender, Professor Rolleston, and Sir Thomas Smith, and with the two last Sir William Turner remained on terms of intimacy until their deaths.

Sir William Turner was a Lancashire man, being born in Friar Street, Lancaster, in which town his father occupied a good business position. He was born on January 7, 1832, being the eldest son of William Turner and Margaret Aldren of Skerton near Lancaster. He lost his father when five years of age, and was dependent for his early education on his mother, who survived till 1869, and had the pleasure of seeing him elected Professor of Anatomy in the University of Edinburgh. He used to tell his children that he could read at four years of age, and began Latin when he was six; on reaching school age he went to a school at Long Marton in Westmorland kept by the Rev. W. Shepherd, where he seems to have worked at his studies in the same steady manner which distinguishes his work throughout life. His schoolmaster, writing to Mrs. Turner in 1846 when he left school, expressed his great regret at parting with him and much satisfaction with every aspect of his conduct during his school career. Mr. Shepherd writes in even stronger terms of his younger brother Robert, who was also at Long Marton and unfortu-

natcly died after a few days' illness when fourteen years of age, saying "He possesses considerable ability, and later on will make a very good scholar; he is in every way most promising."

In February of the following year William Turner was apprenticed to Mr. Christopher Johnson (Junior), surgeon and apothecary, Lancaster, in partnership with his father, also Christopher. I am unaware of the circumstances which led to his being apprenticed to Mr. Johnson. He may as a boy have shown a desire to enter the medical profession, or his friends perceiving that he possessed unusually good abilities, may have considered that this was the best means of giving him a chance of rising in the world and entering a profession rather than a trade. Gifted as he was with exceptional intellectual power, untiring industry, retentive memory, and a desire to succeed, Turner was bound to do well in any line of life he adopted. Whatever may have been the determining cause, medicine and science have been the gainers, for no one has played a more important part in Medical Education or in the promotion of certain branches of science than Sir William Turner. Mr. Johnson (Senior) quickly recognised the young apprentice's value and talents, and a granddaughter of his writes: "I have heard him (Sir William Turner) speak gratefully of the debt he owed to my grandfather, to Sir James Paget, and Professor Goodsir alike." During his apprenticeship, at Mr. Johnson's desire, he attended the Mechanics Institute, now replaced by the Storey Institute at Lancaster; Chemistry and Botany appear to have been his main studies there, and we shall see that subsequently his first honours were gained in these subjects.

Sir William Turner in a speech he made at the opening of the Storey Institute on October 23, 1891, acknowledged how much he owed to the Johnson family, and speaking of them says, "there was in those days a small lamp of science burning in Lancaster, and those who lit it were the family of the Johnsons." In the same speech he also refers to the influence which Sir Richard Owen's example and career had on him as a boy. Owen was himself a Lancaster man, and it is very probable that Turner may have met him at the Johnsons', and very probably he may have recommended that Turner, at the end of his apprenticeship, should go to our school, for Owen about that time lectured at our Hospital on Comparative Anatomy, and was in close connection with Paget both at the Hospital and also at the Royal College of Surgeons. As already mentioned, Turner at the expiration of his apprenticeship entered our school in October 1850, and soon gave evidence of his abilities, obtaining in May 1851 First Prize in Chemistry and in July of the same year the Hospital prize for Botany, subjects which he had studied at the Institute at Lancaster, for in his graduation address (delivered August 1888) he tells



SIR WILLIAM TURNER, K.C.B.

us, that from the first year of his apprenticeship, Christopher Johnson, recognising the need of a scientific foundation in medical training, required him to study both botany and practical chemistry. In 1852 he was awarded First Prize in Chemistry and was second in Botany at the Matriculation Examination of the London University, and the following year he gained the Hospital Scholarship in Anatomy, Chemistry, and Physiology, and at the same time the prize for Practical Anatomy. In 1854 he took the Intermediate Examination in Medicine at the London University, when he was third on the Honours list in Chemistry and gained the Exhibition and Medal in Materia Medica and Pharmaceutical Chemistry. He subsequently, in 1859, took the M.B. degree, passing in the First Division.

A student of such marked ability could not fail to attract the attention of his teachers, and from these years dates his friendship and close connection with Sir James Paget, at that time lecturing on Physiology at the Hospital. On July 1, 1853, Turner passed the membership examination of the Royal College of Surgeons, for in those days there was no five years course, the only regulation as to presenting oneself for examination being proof of having passed the age of twenty-one. In October of this year he was awarded the Gold Medal in Materia Medica and Therapeutics at the Society of Apothecaries in London. At this period, notwithstanding his having gained the prize at the Hospital in practical anatomy, Turner appears to have had a distinct leaning towards chemistry, and Sir James Paget seems to have encouraged him in this, for in 1854, the year in which he passed the Intermediate Examination in Medicine at the London University, a paper of his, written in collaboration with Sir James Paget on the properties of the cerebro-spinal fluid, was accepted and published in the *Proceedings of the Royal Society.*

The year 1854 was the turning point in Turner's life ; up to that time we have seen him, as an industrious and intelligent boy, and later as a brilliant and most successful student who had gained not only the good opinion but the friendship of his teachers and of those with whom he had been brought into close connection. In this year Professor Goodsir, returning from his year's absence from the Professorial chair in Edinburgh, appears to have determined on taking for his demonstrators young men who had received their anatomical instruction in London, and took with him to Edinburgh, Frederick Sayer, recommended to him by Professor Sharpey ; A. M. Edwards, by Sir William Ferguson ; and William Turner, by Sir James Paget : of these, Professor Goodsir made Turner the senior. At the time that Turner commenced his Edinburgh life, the reputation of the Edinburgh Medical School was as high or even higher than it had ever

been. Goodsir was recognised as a leader in anatomy all over the world; Sir James Simpson was known as widely as the introducer of chloroform; Syme was acknowledged to be amongst the foremost of British surgeons. Christison still held the chair of Materia Medica, Hughes Bennett was lecturing on Physiology and James Hutton Balfour on Botany. It was an enormous advantage to the young demonstrator to be brought in eontact with these leaders in science, and it was not long before they recognised his value. With Sir James Simpson he soon became intimate, and at one time made for him any post-mortem examinations that occurred in his private practice. Speaking of his appointment as Demonstrator by Professor Goodsir, Turner, when returning thanks for the honour shown him by the presentation, on February 13, 1913, of his portrait by Sir James Guthrie, P.R.S.A., to the University of Edinburgh, said that "it had often occurred to him that it would be difficult to say who showed the greater courage, Professor Goodsir in choosing a youth fresh from the student's bench of St. Bartholomew's Hospital and Medical School, who had had no experience in teaching, or the youth himself who dared to accept the appointment." The future was to show the wisdom of the choice that was made by both.

In the year following his appointment as Demonstrator he made the acquaintance of Lord Lister, who was in that year elected a Fellow of the Royal College of Surgeons of Edinburgh and recognised by it as a Lecturer on Surgery in the School of Medicine; two such kindred spirits could not help becoming friends, and from this time dates his close intimacy with Lord Lister, and Turner in a letter I have been privileged to see states how much he benefited from the joint work they did together. "My association with him in this investigation [1] enabled me to realise and to profit by the methodical care with which he conducted his observations, the importance of testing them by repetition and control experiments, and his caution in framing conclusions." Sir William's future work shows how faithfully he adhered to Lister's example in these respects.

From those early Edinburgh days onwards Turner's advance in scientific knowledge and his reputation as an anatomist and scientist can be followed in the numerous papers he published in scientific and other journals; scarcely a year elapses without his contributing three or four papers, all of value, but naturally varying in importance, until at the end of his long life his scientific papers, addresses, and other published works amounted to upwards of 270.

With a view to making his anatomical course complete, Professor Goodsir had instituted a practical course of histology, and for some

[1] "Observations on the Structure of Nerve Fibres," *Quart. Journ. Micro. Science*, Oct. 1859.

years conducted the microscopical demonstrations himself; but in 1856 he entrusted the whole of this teaching to Turner, who continued to hold this course until his appointment as Professor. From the very first Turner's success as a demonstrator was assured; nothing could have been happier than the relationship between Professor Goodsir and himself, and he at once gained the respect of the students. One of his early pupils writes: "He was always vigorous and energetic and kept perfect discipline, with sufficient dry Lancashire humour to make it kindly though firm; he gave daily in the theatre demonstrations on freshly made dissections of the whole body. His teaching was so exact and clear that we missed nothing. . . . Goodsir was often in the clouds for many of us, Turner was squarely on earth. He was anything but a dreamer, and always taught his subjects as a science academically." This terse but eloquent description of Turner as the demonstrator applies with equal truth and force to his teaching throughout his life. While demonstrator he had been steadily gaining in reputation, not only as a teacher but as a scientific anatomist, not confining himself to the dry principles of human anatomy, but taking a wide and comprehensive interest in physiology, pathological anatomy, zoology, and anthropology. His friend and former teacher, Sir James Paget, in 1863 committed to his care the editing of the second edition of his *Lectures on Surgical Pathology*. Among the most important papers which he published during his demonstratorship, attention should be drawn to that on the existence of a system of anastomosing arteries between and connecting the visceral and parietal branches of the aorta, and another on a supplementary system of nutrient arteries for the lung.

In 1867, in conjunction with Professor Humphry of Cambridge, he founded the *Journal of Anatomy and Physiology*, and during the first ten years of the *Journal* undertook to summarise the current anatomical literature of the day in addition to his labours as editor, a task which gave him an intimate acquaintance with the progress of anatomical knowledge. Later on he was one of the founders of the Anatomical Society and a frequent contributor to the *Journal*.

In 1861 he was elected a Fellow of the Royal Society of Edinburgh and a Councillor in 1866, subsequently, in 1869, becoming one of the Secretaries, Vice-President in 1891, and in 1908 he succeeded Lord Kelvin as President. The Neil prize was awarded to him by the Society for his paper on the Anatomy of the great Finner Whale (*Balænoptera Sibbaldi*) in 1871, and the Keith prize in 1903 for his contributions to the craniology of the people of Scotland and of the people of the Empire of India. Dr. J. Horne, the present President of the Royal Society of Edinburgh, writes of him and of the value of his services to the Society as follows: "His attachment to the

Royal Society of Edinburgh was deep and sincere, and he has left behind him an enduring record of devotion to its highest interests."

Upon Professor Goodsir's death in 1867, there could be no question as to his successor, and the Curators had no need to go outside the University to fill his place. In fact for some years Goodsir's failing health had thrown an increasing amount of labour and responsibility on Turner, and the change from demonstrator to professor was rather one in his academical status than in his life and work. From the time of his appointment to the Professorial Chair until his election as Principal and Vice-Chancellor of the University Sir William Turner's life was one of steady progress; he was soon felt to be a power in the Senate; his administrative gifts, his lucidity of thought and clearness of language were of the greatest value in the University Councils, and whilst the world was paying honour to his scientific work, the University was reaping the benefit of his sound judgment and single-hearted devotion to her interests.

It is needless for me to attempt to follow his career through the thirty-six years that he held the professorship. Others have borne testimony to the influential part he played in all matters relating to the University, and how large a share he took in carrying out the scheme for the extension of the University buildings and the McEwan Hall, and in the arrangements made for the tercentenary celebration in 1883.

As a teacher of anatomy Sir William stands *facile princeps*. The success of his pupils in after life has been remarkable; at the time of his death no fewer than fifteen of them were holding or had held professorial chairs in Great Britain and Ireland or in the Dominions.[1] This, as Dr. M'Kendrick, F.R.S., says in his Memorial Notice, "was a matter of pleasure and pride to Turner, and I have frequently heard him allude to it as perhaps the greatest honour of his life."

The key to Sir William's unparalleled success with his pupils is to be found in the relationship which always existed between them and their teacher; this is strikingly shown in the congratulatory address presented to him by the Students' Representative Council in 1886 upon his receiving the honour of knighthood. His students recognised the value of his teaching and their indebtedness to him

[1] At the time of Sir William Turner's death the following had been his pupils and held or had held during life professorial chairs:

Professor Morrison Watson, Owens College; Professor J. D. Cunningham, Dublin and Edinburgh; Professor Arthur Robinson, King's College, Birmingham; Professor Arthur Thomson, Oxford; Professor Halliday Scott, New Zealand; Professor Johnson Symington, Belfast; Professor Robert Howden, Durham; Professor J. T. Wilson, Sydney; Professor A. M. Paterson, Liverpool; Professor T. H. Bryce, Glasgow; Professor David Hepburn, Cardiff; Professor Richard Berry, Melbourne; Professor James Musgrove, St. Andrews; Professor Waterston, St. Andrews; Professor Primrose, Toronto; Professor Lamont, Dundee; with possibly others.

for the equipment for medical teaching provided for them, but laid especial weight on the affection they had for him. In truth not only those who as demonstrators and prosectors were brought into close relationship with him, but all students who came under his influence felt that they had in him much more than a teacher, a real friend, and this feeling was markedly shown when it was proposed in 1895 that his colleagues and old pupils should present him with his portrait. Subscriptions, together with letters expressing how much they owed to him, flowed in from all parts of the world. This picture, painted by Sir George Reid, P.R.S.A., was a source of much pride and pleasure to Sir William, who greatly valued it as a testimonial to the harmony and good feeling that had always existed between him and his pupils and colleagues.

Professor Keith, in the eloquent biographical sketch he gave of Sir William in the *British Medical Journal*, likens him to John Hunter, saying "He was a builder, not restricted to one single line of endeavour, but covering many fields." "Like Hunter he built a great Museum." This is true enough, but as Sir William himself observed, it was Owen, rather than Hunter, who influenced him throughout life.

The amount of original research work which Sir William accomplished during the long period of his professorship was very large; fully occupied as he was with his professorial duties, he nevertheless found time to publish many original articles which placed him in the front rank of comparative anatomists, anthropologists, and craniologists, and led to his being recognised as a leader throughout the scientific world. Among his writings special mention should be made of his Lectures delivered as Arris and Gale Lecturer before the Royal College of Surgeons in England in 1875–6 on the Comparative Anatomy of the Placenta, and his papers on the convolutions of the human brain topographically considered, in which subject he may be regarded as a pioneer; his principal communication on this subject, read before the International Medical Congress at Berlin in 1890, was subsequently published as a separate work. He was for many years a constant attendant at the meetings of the British Association for the Advancement of Science, and when it met at Toronto in 1897 Sir William gave an address as President of the Anthropological Section, reviewing some of the distinctive characters of human structure as compared with that of the higher apes and monkeys, and three years later he had the great honour of being elected President of the Association when it met at Bradford.

Numerous Universities, both British and in the Dominions, conferred on him their honorary degrees, and he was a Member or Fellow of a large number of scientific societies, both British and foreign.

In 1912 he received the Royal Prussian Order pour le Mérite, an honour which at the time gave him great pleasure and satisfaction, as during his frequent visits to Germany he had made numerous acquaintances and, as he thought, friends in the German scientific world, believing, as we all then did, that the intimacy and friendship which appeared to exist between the scientific men of the two nations was a proof that both alike were striving for a knowledge of truth, the advance of civilisation and good will among nations. Sir William was so much disgusted with German methods after the outbreak of the war, that he gave instructions to have this distinction erased from any account of his honours.[1]

In 1873 Turner was appointed by the Universities of Edinburgh and Aberdeen their Representative on the General Medical Council and served in that capacity for ten years, and after an absence of three years rejoined it as the Representative of Edinburgh, when in 1886 the two Universities received separate representation. He at once occupied a prominent place in the Council, and it was during the ten years that I was with him on the Council that I learnt to recognise his administrative power and ability. He was, as Sir Donald MacAlister says, "the leader of the House," and upon Sir Richard Quain's death in 1898 he was unanimously elected President, remaining in that office until he became Principal and Vice-Chancellor of the University of Edinburgh. As President, besides taking the chair at the meetings of the Council with dignity and firmness, he paid frequent visits to London for the purpose of keeping in close touch with the business of the Council and with those Departments of the Government which are connected with medicine. I once asked him if it was not a great inconvenience being so far from the Council's office. "No," he replied, "the Council's work is part of my daily work; few days pass that I am not in communication with it." I remember also the reply he made to a colleague who asked after we had had a somewhat warm and involved discussion in the Council: "Turner, how do you manage to keep so many points clear in your head at the same time?" Sir William's reply, given seriously and not in joke, was, "Teaching Anatomy, teaching Anatomy."

When at the end of 1902 Sir William Muir resigned the office

[1] *Honorary University Degrees.*—LL.D. Glasgow, 1884; D.C.L. Durham, 1889; D.C.L. Oxford, 1890; Sc.D. Dublin, 1892; LL.D. St. Andrews, 1892; LL.D. Aberdeen, 1892; Sc.D. Cambridge, 1889; D.C.L. Toronto, 1897; D.C.L. Montreal, 1897.

Other honours not mentioned in the text.—Fellow of the Royal Society, 1887; Hon. Fellow R. Med. and Chir. Soey., 1887; Hon. Fellow R. College Surgeons, England, 1893; Hon. Member of Royal Irish Academy; Hon. Fellow Obstetrical Society of Edinburgh; Hon. Fellow of the Anthropological Societies, Paris, Rome, and Brussels; Corresponding Member of the Anthropological Society of Berlin; Corresponding Member of the R. Prussian Academy; Hon. Burgess of the City of Edinburgh, 1909. Tablet erected in Lancaster August 9, 1913, on the house in which he was born (originally erected on the site of the house where it was thought he was born: now corrected).

of Principal and Vice-Chancellor of the University of Edinburgh, no doubt seems to have been felt as to his successor; Sir Ludovic Grant writes, "It was almost unthinkable that anyone but Sir William Turner should be selected, so immeasurably did his claims distance those of all possible rivals." The only person who seemed in doubt was Sir William himself. In announcing to his class his acceptance of his new office, he says, "Gentlemen, you will understand that the acceptance of this new office was to me a matter of great thought, concern, and anxiety. And it was only because I am sure that it was my duty to accept it that it was accepted." One can easily understand how great a wrench it must have been to him to dissociate himself from the teaching of anatomy, and still more to be separated from the anatomical students of the University whom he so dearly loved and whose interests had for so many years occupied a foremost place in his heart. How successfully Sir William encountered the responsibilities and difficulties of his new office is best told in the words of one of his colleagues on the Senatus Academicus who has supplied me with the following account of his Principalship.

". . . His appointment as Principal of the University of Edinburgh was regarded in academical and scientific circles as an appropriate recognition of the fact that he was practically the *doyen* of British anatomists, and had been for many years a University teacher of exceptional power and distinction. The office to which he was now called brought with it new and grave problems with their inherent difficulties; but he had long been a member of the Senatus Academicus, and was also a member of the University Court since its institution under the Universities (Scotland) Act of 1889, and in both of these bodies his knowledge of University affairs and his capacity as an administrator had been conspicuous. He thus brought with him to the duties and tasks that now confronted him a unique experience of University conditions, educational, disciplinary, and financial, as well as matured convictions regarding the essentials of University vitality and progress. His sagacity, evenness of temper, and firmness accounted for the success with which he presided over the deliberations of the University Court and of the Senatus, and for the smoothness with which changes were, from time to time, introduced which he conceived to be necessary for the welfare and future prosperity of the great Institution with which, throughout all its departments, he was henceforward to be still more closely associated.

"Edinburgh had now been his home for many years, and he had actually become as really and truly a Scotsman as any of his colleagues, friends, and neighbours. It can well be imagined how this aspect of his personality conduced to the successful discharge of

the onerous duties of the combined offices of Principal and Vice-Chancellor of the University. There was, however, another and counterbalancing feature in his personality—a certain element of detachment relatively to his Scottish environment which was not without its importance. It partially explains the mediating influence which he latterly exercised amid the somewhat sharp contrasts to be met with in the social life of the northern metropolis. Even in the ecclesiastical domain, where such contrasts are not unknown, his influence was that of reconciliation. Although a member of the Church of England, he was always interested in the Church of Scotland, especially in connection with the University services held in the ancient church of St. Giles, where he was not infrequently heard reading in emphatic and far-reaching tones the lessons for the day.

"The broader outlook with which he regarded men and things made this and similar instances possible. As a matter of course his position as Principal, and his established reputation for business capacity, led to additional demands on his time and activity. For some of these, although not for all of them, *ex officio* appointments were responsible. The Carnegie Trust, on the Executive Committee of which he was a member, and Trusts for Secondary Schools and Colleges demanded and received much anxious thought. Curiously enough, he took an especially warm personal interest in a committee concerned with the promotion of Secondary Schools in the Highlands and Islands of Scotland, and presided with no little zest and great skill over the deliberations of educational experts engaged in adjusting the claims of the various localities, and deciding the extent to which the teaching of Gaelic should be encouraged in those remote parts.

" Ever a welcome guest, he was also a most genial host—a trait in his character which was seen to advantage as often as he dispensed his hospitalities in connection with University functions and events. It was when surrounded on such occasions by his guests, by men eminent in some branch of letters, science, or art, by colleagues and friends, that the lighter, brighter, and very genial side of his nature was fully disclosed and realised. Then, the indefatigable investigator in scientific matters, the cautious administrator, and the disciplinarian simply became a lovable human being with kind thoughts for all, overflowing with ready wit and pleasant humour.

" It was right that when the end came Edinburgh, which he dearly loved and had nobly served, should retain all that was mortal of the distinguished Principal of its University, Sir William Turner."

I have endeavoured briefly, and I fear very imperfectly, to give an account of Sir William Turner's early life and student days, and also

of what may be called his official life. A much harder task remains, and that is to give those who had not the pleasure of enjoying his friendship some idea of his personality, and how it was that all who came to know him in private life regarded him with feelings of admiration and affection. To those who have never sat beneath Sir William Turner's professorial eye, it seems strange that any, as some have done, should have described his countenance as solemn and severe. His face, like that of all strong men, gave indications of his firmness of character and of a man who felt the responsibility of his position, but it was ever lit up by a most genial smile, and few men had wider sympathy with their fellows in the trials and also in the successes and pleasures of life.

I first made his acquaintance in Oxford when he was on a visit to his old fellow-student and friend, Professor Rolleston, in the year 1860. My introduction to him was, if I remember aright, in the dissecting room of the New University Museum, which had then been recently opened, and I met him again at the meeting of the British Association at Newcastle in 1863, when Professor Rolleston was President of the Section of Physiology. From that time onwards I used to meet him occasionally in London, chiefly in the house of Sir Thomas Smith, when they talked over their student days and the pleasant memories they had of a tour they made together in 1860, passing through Brussels and going on to the Black Forest, Italian Lakes, and parts of Switzerland. It was during the ten years that I was a member of the General Medical Council that I got to know him really well, and from that time I may say our friendship began. I never had the privilege of seeing anything of his home life, for although I was frequently passing through Edinburgh on my way to and from the North of Scotland for my summer holidays, he and his family were never in residence at the time. Whilst still Goodsir's demonstrator, he married in 1863 Agnes, eldest daughter of Abraham Logan, Esq., of Burnhouses, Berwickshire; she predeceased him, dying in January 1908. This union was blessed with five children, three sons and two daughters; the eldest son, Dr. Aldren Turner, physician to King's College Hospital and the National Hospital for Epilepsy and Nervous Diseases, has already made a name for himself as an investigator and authority on nervous diseases; Dr. Logan Turner, who is Surgeon to and Lecturer on Diseases of the Throat and Ear at the Royal Infirmary, Edinburgh; whilst Francis Turner has devoted himself to agriculture, and farms in Roxburghshire. Sir William's two daughters are unmarried. One of the great charms of Sir William's character was, that although anatomy and botany could claim him as a devoted servant, his broadness of view and the sympathy which he had for his fellows made him take a lively interest in

everything pertaining to mankind. It was this which made him such a charming companion, and added much to the influence he had on numberless generations of students.

At no time during his early life did he take part in the usual amusements of men of his age, and after he had become more Scotch than a Scotchman, even the professor's game—golf—had no attraction for him. It was somewhat remarkable that a man of his physique and energy never took much bodily exercise, original research being the recreation he allowed himself from his professorial work. During term time, in the later portion of his life, his only exercise was walking from his house to the University, about one mile and a quarter, and back, and for some years before his death he had ceased to take much exercise. He lived a very regular life, eating sparingly and only occasionally taking any form of stimulant, and for several years before his death he seldom dined out, as he found that it was too tiring for him after his day's work.

In his early Edinburgh days he joined, at the commencement of the Volunteer movement, The University Company of the Queen's Voluntcer Brigade as ensign, and became Lieutenant-Colonel in 1889, resigning in 1890 after thirty-one years' service. Sir J. H. A. Macdonald, who commanded the Brigade, says, "He was a regular and steady Volunteer, and his Company was always one of the crack Companies of the Brigade." Sir G. A. Smith, Principal of the University of Aberdeen, who was a private in his Company, writes: "His searching eyes, clear voice, promptness, decision, and ready humour kept his men awake and eager even on the hottest days and in the most uninteresting evolutions, and I do not think that he was ever guilty of any of the mistakes not infrequent among Volunteer Officers of those days. . . ." "When the battalion marched past at the double our aged Captain (Sir R. Christison) always fell out and Lieut. Turner took command of the Company. He had a wonderful frame for his years and could march and run with the youngest."

Sir William Turner was throughout life fond of travel. In his younger days he paid many visits to Germany, on one occasion being the bearer for Professor Goodsir of a specimen of the Electric Cat-fish (*Malapterurus electricus*), to Professor Du Bois Reymond in Berlin; and a story exists for which I will not vouch the credibility, that Turner had a difficulty in passing his luggage through the custom-house, until one of the officers incautiously put his hand on the fish.

During his early married life he was in the habit of passing his vacations on the West Coast of Scotland, and, as his family grew older, at bathing resorts in Normandy or Brittany, and from these places made short walking tours. Interested as he was in botany,

zoology, and geology, every place he visited afforded him opportunities for still further increasing his knowledge of nature. In later life he travelled in company with his daughters almost yearly during the summer vacation, in France, Switzerland, and the Tyrol, and latterly mainly in Italy. Scenery, painting, and architecture all appealed to him, and of late years he became deeply interested in the remains of Greek and Roman architecture. I look back with particular pleasure to a few days my wife and I spent with him and his daughters in Italy when we met accidentally in Venice a few years ago. Continental travel had a refreshing and invigorating effect on him, and he returned from his tours renewed in strength and with further stores of learning. He greatly enjoyed his visit to Canada and the United States when he attended in 1897 the meeting of the British Association at Toronto. He had as companions on his outward voyage a number of distinguished men whose society was very pleasant. After the British Association Meeting was over he prolonged his stay, meeting both in Canada and the States many former students and old friends. Everywhere his reception by them was of the most affectionate kind, and such meetings gave him unmitigated pleasure.

Sir William was not forgetful of his old Medical School and of what he owed to it; when in London he not infrequently paid it a visit; he contributed several papers to the early volumes of our *Reports*, and occasionally attended our October dinner. He was in the chair in 1879, and made a very interesting speech, reviewing the changes that had taken place in the staff, buildings, and rules of the Hospital since his student days. He congratulated the Treasurer and Governors on the interest they took in the Medical School and the progress of medicine, and in particular that they had thrown the appointments to its staff open to all comers; the old rule that the physicians must be graduates of Oxford or Cambridge being no longer enforced.

Sir William Turner retained in a remarkable manner his activity of mind and of body to an advanced age, no one seeing him walking with his erect carriage and brisk step, or meeting him in social life would have realised that he had passed fourscore years; he had all the energy and receptivity of youth, and his powers for undertaking original work were undiminished. He was spared having to bear the infirmities of old age, dying after a short illness on February 15, 1916.

W. S. C.